Regional Water Quality Control Board Response to Written Comments Regarding Mountain House Community Services District Wastewater Treatment Plant Proposed Time Schedule Order and Tentative Waste Discharge Requirements

The following are responses to written comments received from interested parties in response to the proposed Time Schedule Order and Tentative Waste Discharge Requirements (NPDES No. CA0084271) for the Mountain House Community Services District Treatment Plant issued on 14 June 2006. Written comments from interested parties were required to be received by the Regional Water Quality Control Board (Regional Water Board) by 14 July 2006 in order to receive full consideration. Comments were received by the deadline from:

1. Mountain House Community Services District (Discharger)
2. California Sportfishing Protection Alliance (CSPA)
3. South Delta Water Agency (SDWA)
4. California Department of Water Resources (DWR)
5. California Urban Water Agencies (CUWA)
6. Metropolitan Water District (MWD)
7. Alameda County Water District
8. State Water Resources Control Board (State Water Board)
9. NOAA National Marine Fisheries Service (NMFS)

Written comments from the above interested parties are summarized below, followed by the response of the Regional Water Board.

MOUNTAIN HOUSE COMMUNITY SERVICES DISTRICT (MHCSD) COMMENTS

A. FACTUAL AND TECHNICAL CORRECTIONS

MHCSD—WDR COMMENT #1, Pages 9 & 10, Effluent Limitations A.1.a and A.1.b. The effluent limitations currently shown for dibromochloromethane, 0.28 µg/L (AMEL) and 0.41 µg/L (MDEL), are incorrect. The effluent limitations for dibromochloromethane should be 0.41 µg/L (AMEL) and 0.82 µg/L (MDEL), as demonstrated by calculations presented in Table F-12 (p. 58) of the Fact Sheet.

> **RESPONSE:** Staff renumbered Table F-12 to Table F-11 to correct a numbering error. We agree that we did not properly transcribe the effluent limitations from Table F-12 of the Fact Sheet. We have corrected the error.

MHCSD—WDR COMMENT #2, Page 11, Interim Effluent Limitations A.2.a. According to procedures used to derive the interim limitations, as described on pages 60-61 of the Fact Sheet, the interim maximum daily effluent limitations should be as follows: aldrin, 0.016 µg/L, bis(2-ethylhexyl)phthalate, 23.0 µg/L, cyanide, 17 µg/L, heptachlor, 0.072 µg/L. A related edit is needed on page 61 of the Fact Sheet. The last sentence of the first full paragraph should read, “Using Table 5-2 of the TSD results in an interim effluent limitation of 23.0 µg/L.” Also, the aldrin limit should be 0.016 (the result of 0.005 x 3.11) µg/L in Table F-14, not 0.014 µg/L

RESPONSE: Incorrect multipliers were used to derive the interim limitations. We recalculated using the correct multipliers and corrected the Fact Sheet and Interim Limitations.

MHCSD—WDR COMMENT #3: Page 12, RECEIVING WATER LIMITATION V.A.7., pH. Page 63 of the Fact Sheet states, "an averaging period of 30 days has been applied to the Basin Plan receiving water objective for changes in pH." However, this was not stated directly in the receiving water limitation #7 on page 12, which is the basis for compliance assessment. We request that the 30-day averaging period language in the Fact Sheet be included in receiving water limitation #7 to remove any ambiguity regarding how compliance is to be assessed.

RESPONSE: The Regional Board has found that applying an averaging period for changes in the ambient pH up to 0.5 pH units is appropriate and fully protects the beneficial uses. The Fact Sheet indicated that an averaging period had been applied. The proposed Order has been revised to include an averaging period as requested.

MHCSD—WDR COMMENT #4: Page 19, PROVISIONS VI.C.1.h., Final Effluent Limitations for Electrical Conductivity. The first sentence should reference Special Provision VI.C.2.d, not VI.C.2.c.

RESPONSE: The error has been corrected.

MHCSD—WDR COMMENT #5: Pages 3-4 (MRP), EFFLUENT MONITORING REQUIREMENTS. IV.A.1. The requirement to monitor for Dalapon and pentachlorophenol is unnecessary.

RESPONSE: A reevaluation of the monitoring data from the Phase I WWTF showed that the discharge met water quality criteria for dalapon and pentachlorophenol. The requirement to monitor for dalapon was deleted and the requirement to monitor for pentachlorophenol as a specific constituent was deleted. Pentachlorophenol, a priority pollutant, will be measured during routine annual monitoring.

MHCSD—WDR COMMENT #6: Page 11 (Fact Sheet). Modify the first two sentences of the second paragraph to reflect an interim effluent limitation of 1875 µmhos/cm. Delete the last sentence.

RESPONSE: Staff determined that, after the initial startup of the Phase I WWTP, that EC dropped significantly. After eliminating data from the startup period, a new interim limit of 1300 was calculated. Consequently, the interim limitation of 1875 was reduced to 1300 µmhos/cm. The second sentence was modified to state "This interim effluent limit is slightly higher than the secondary maximum contaminant level (MCL) for protection of municipal and domestic supply (1000 µmhos/cm).

The last sentence of the second paragraph was deleted because there is no compliance time schedule for temperature and the sentence was in error.

MHCSD—WDR COMMENT #7: Fact Sheet, Pages 32-33 and 56, Effluent Limitations, Aluminum. [T]he U.S. EPA's recommended 87 µg/L chronic aquatic life criteria used as the basis for this permit limitation is not appropriate … U.S. EPA's recommended aluminum criterion for chronic protection of aquatic life for waters having pH at or above 6.5 and hardness above 91 mg/L as CaCO3 is 750 µg/L. The aluminum effluent limitation should be revised accordingly. Based on the above, edits are also necessary on pages 32-33 of the Fact Sheet regarding U.S. EPA's recommended aluminum criteria for this site.

The ECA, AMEL, and MDEL multipliers in Table F-6 of the Fact Sheet (p. 56) should be modified based upon the number of samples, including the non-detect values resulting in an AMEL of 64 µg/L and an MDEL of 158 µg/L.

Based on the above, the aluminum AMEL and MDEL on pages 9 and 10 of the Limitations and Discharge Requirements should be revised, as should related text on pages 33, 53, and 54 of the Fact Sheet, and the Time Schedule Order.

RESPONSE: The effluent limitations were based on USEPA's recommended water quality criteria to prevent toxicity to aquatic life from aluminum. The national criteria were developed based on scientific studies that concluded that aluminum is toxic to aquatic life at specified concentrations. Since the discharge contains aluminum it is necessary to assure that the discharge does not result in toxicity. The narrative toxicity objective from the Basin Plan is applicable to the discharge. Aluminum is a toxic constituent of the discharge. Applying the narrative toxicity objective using the USEPA National Recommended Water Quality Criteria for aluminum is consistent with state policy, the *Policy for Application of Water Quality Objectives* in Chapter IV (beginning on page IV-16.00) of the Basin Plan. With respect to narrative objectives, the Regional Water Board must establish effluent limitations using one or more of three specified sources, including EPA's published water quality criteria. [(40 CFR 122.44(d)(1)(vi)(A), (B), or (C)].

WE recognize that the Criteria document contains a footnote that states,

> "*USEPA believes that use of Water-Effects Ratios might be appropriate because: (1) aluminum is less toxic at higher pH and hardness but relationship not well quantified; (2) aluminum associated with clay particles may be less toxic than that associated with aluminum hydroxide particles; (3) many high quality waters in U.S. exceed 87 ug/L as total or dissolved.*"

In order to adjust the ambient criteria for aluminum based on the pH and hardness of the receiving water, the Discharger would need to submit adequate information to support a water effect ratio (WER). Without this information, the Regional Water Board must use the default assumption of a WER of 1.0, as was done in performing the reasonable potential analysis. As explained in the Fact Sheet, the acid soluble analysis method is allowed to be

used to determine compliance with the effluent limits, which should eliminate from consideration aluminum associated with clay particles.

Regarding the errors noted in the calculation, the ECA, AMEL, and MDEL multipliers in Table F-6 were calculated using non-detect values as one-half the reported value in strict accordance with SIP procedures. The ECA, AMEL, and MDEL were then calculated by using Table 1 and Table 2 from the SIP. The AMEL in Table F-6 remained at 63 µg/L; the MDEL increased to 159 µg/L. Finding 2 of the Time Schedule Order was changed to show a maximum daily effluent limitation of 159 µg/L. Effluent limitations A.1.a. and A.1.b. were appropriately changed.

MHCSD—WDR COMMENT #8: Fact Sheet, Pages 33-35 and 57, Effluent Limitations, Ammonia. The CMC of 2.95 mg/L cited on p. 34 is incorrect; and it should be 2.14 mg/L. Temperatures cited on p. 35 do not match temperatures shown in Table F-7 (p. 57). Furthermore, the temperatures do not correspond to temperatures in data set submitted to the RWQCB. Effluent limitations cited on p. 35 do not match those on Table F-7. Table F-7 contains errors in the chronic criteria calculation. Also, the AMEL multiplier cited should be based on n = 4, or 1.55 (as monitoring is 1/week or 4 times per month)

RESPONSE: Staff corrected the CMC to 2.14 mg/L to reflect Table F-7. Staff also corrected the temperatures in Table F-7 to reflect values on p.35 (Water Quality Based Effluent Limitations IV.C.3.i.iii.) which also reflect the submitted data set. Staff consequently adjusted the chronic criteria calculations. Based upon those calculations, the AMEL remains 1.0 mg/L and the MDEL is changed from 3.0 to 2.1 mg/L.

MHCSD—WDR COMMENT #9: Fact Sheet, Page 36, bis(2-ethylhexyl)phthalate. In the 2nd to last sentence of the first paragraph, the date placeholder should be replaced with "June 5, 2006." Also, in the 2nd paragraph, first sentence, the reference should be to special provision VI.C.4.c., not VI.C.4.e. The latter section does not exist.

RESPONSE: The June 5, 2006 date has been added. The reference has been corrected.

MHCSD—WDR COMMENT #10: Fact Sheet, Pages 37 and 58, Effluent Limitations, Cyanide. Table F-11 of the Fact Sheet (p. 58) contains incorrect ECA, AMEL, and MDEL multipliers, and need to be changed, and the footnotes deleted.

RESPONSE: The effluent limitation calculation errors were corrected, which changed the AMEL from 3.6 to 4.1 µg/L and changed Effluent Limitations A.1.a. and A.1.b average monthly cyanide to 4.1 mg/L.

MHCSD—WDR COMMENT #11: Fact Sheet, Page 41, Nitrite. Change nitrate to nitrite in the last sentence.

RESPONSE: The error has been corrected.

MHCSD—WDR COMMENT #12: Fact Sheet, Page 49, Effluent Salinity Limitations. Change VI.C.4.d to VI.C.2.c.

RESPONSE: The error has been corrected.

MHCSD—WDR COMMENT #13: Fact Sheet, Page 53, Table F-4. Delete footnote stating monitoring is required for 2,4,5-T(Silvex), dalapon, pentachlorophenol, and thallium.

RESPONSE: Staff has deleted the footnote that stated monitoring was required for 2,4,5-TP(Silvex), dalapon, pentachlorophenol, and thallium. Pentachlorophenol and thallium will be monitored as priority pollutants in accordance with CTR requirements.

MHCSD—WDR COMMENT #14: Fact Sheet, Page 57, Table F-8, bis(2-ethylhexyl)phthalate. The MDEL/AMEL multiplier used was incorrect and needs to be modified.

RESPONSE: The error has been corrected. The change did not cause the effluent limitation to be modified.

MHCSD—WDR COMMENT #15. Fact Sheet, Pages 67-68, Special Provisions. This section of the Fact Sheet contains errors in the cross-references to the Special Provisions section of the Limitations and Discharge Requirements (pages 18-19)

RESPONSE: The references have been corrected.

MHCSD—WDR COMMENT #16: Fact Sheet, Page 73, Compliance Schedules 4. This should reference VI.C.4.c., not VI.C.4.

RESPONSE: The Fact Sheet has been amended.

B. REQUEST FOR ALTERNATE DISCHARGE LOCATION. The MHCSD requests changing the permitted discharge location from the current location specified in the Tentative Permit to a location closer to the WWTP at 300 feet downstream of Wicklund Cut. The potential use of either or both outfall locations was addressed in the applications prepared for all of the regulatory permits required for diffuser placement, including the Department of Fish and Game Section 1600 Streambed Alteration Agreement, Section 401 Water Quality Certification (and associated waiver of Waste Discharge Requirements for minor dredging activity), US Army Corp of Engineers Section 404 nationwide permits for dredge and fill activities and associated biological assessments prepared for Endangered Species Act consultations with the US Fish and Wildlife Service (USFWS) and NOAA Fisheries. The applicant has received the Section 1600 and 401 approvals from the agencies. The Section 404 permit requires completion of the biological opinions from USFWS and NMFS, which are pending.

RESPONSE: The request for an alternate discharge location cannot be approved at this time because changing the discharge location is a significant modification and will require a new Report of Waste Discharge.

C. REQUEST FOR MODIFIED MONITORING LOCATIONS. The MHCSD is requesting modified receiving water monitoring locations. If outfall relocation is approved, move R-001 to 500 feet from outfall 001. If outfall relocation is not approved, it requests moving R-003 to within 500 feet of the outfall. If outfall relocation is approved, move R-001 to 500 feet from outfall 001. If outfall relocation is approved, leave it as written in the tentative WDRs. It requests eliminating R-004 based upon the rationale that R-004 is not a downstream or upstream monitoring point for outfall 001 and that if Westside Irrigation were to apply the water for municipal as well as irrigation water, Westside would be required to monitor.

RESPONSE: The outfall relocation is not approved, however moving R-003 is not appropriate either. R-003 was located to be reasonably upstream to yield representative samples, particularly during times when the downstream barrier is removed. Moving it close to the outfall would not allow for representative sampling. R-004 is located to provide monitoring of the impacts of the discharge on a major agricultural intake on Wickland Cut. In responding to this comment we determined that Attachment B should be revised to better indicate the monitoring locations. This was completed as a late revision.

D. REQUEST FOR LANGUAGE MODIFICATION.

MHCSD—WDR COMMENT #17, Page 6, Effluent Limitations, Stringency of Requirements for Individual Pollutants, Finding II. M. This finding should be deleted or modified to be legally and factually accurate prior to adoption of the final permit.

RESPONSE: The Finding has been clarified to more clearly indicate provisions of the permit that the Regional Water Board considers to be more stringent than federal law.

MHCSD—WDR COMMENT #18, Page 8, Effluent Limitations, Discharge Prohibition III.A. Add the words “or other applicable State or Regional Board order.”

RESPONSE: Regardless of the coverage obtained under the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (Order 2006 0003), the Discharger’s collection system is part of the treatment system that is subject to the proposed Order. As such, pursuant to federal regulations and as covered by this Order, the Discharger must properly operate and maintain its collection system [40 CFR section 122.41(e)], report any non-compliance [40 CFR section 122.41(l)(6) and (7)], and mitigate any discharge from the collection system in violation of this Order [40 CFR. section 122.41(d)].

MHCSD—WDR COMMENT #19, Page 18, Effluent Limitations, Reopener Provisions, C.1.b, Mercury. Revise the final sentence of the reopener to indicate that the offset program would be voluntary.

RESPONSE: If mercury reductions are found to be necessary, this order may be reopened to adjust the interim mass limit, establish an effluent concentration limit, and evaluate the need for an offset program. An offset program would be an option that may provide a mechanism for compliance with mercury limitations without needing to construct additional treatment works at the facility. The Discharger can always provide an alternative, equivalent means of compliance

MHCSD—WDR COMMENT #20, Page 18, Effluent Limitations, Reopener Provisions, C.1.f, Dilution Credits. MHCSD proposed alternative language to replace the requirement to provide real-time flow monitoring in order to demonstrate dilution is available.

RESPONSE: The current requirement for real-time monitoring is appropriate. However, the third sentence was modified to read, "...and if real-time flow monitoring data the station and supporting mathematical modeling analysis demonstrates…".

MHCSD—WDR COMMENT #21, Page 23, Effluent Limitations, Best Management Practices and Pollution Prevention VI.C.3.c. The Discharger requests removal of the 1000 µmhos/cm EC goal.

RESPONSE: The proposed Order specifies a goal to indicate the level of reduction that is expected of the Discharger during the permit term. Goals are not enforceable, but they are a statement by the Regional Water Board on our expected achievement to be reached by the City within 5 years (the permit term).

MHCSD—WDR COMMENT #22, Pages 29-30, Effluent Limitations, Compliance Determinations VI.A. and VI.B. Revise the language in the AWEL and AMEL paragraphs.

RESPONSE: The compliance determination language included in the proposed Order was prepared as part of the NPDES standardized template. The language has been reviewed by Regional Water Board staff and has been determined to be appropriate. No change will be made to the compliance determination section.

MHCSD—WDR COMMENT #23, Page 5, Monitoring and Reporting Program, Acute Toxicity Testing. A request was made to modify the frequency to monthly for the first year and then quarterly thereafter.

RESPONSE: Staff has modified the testing frequency from weekly to monthly to be consistent with the testing frequency required of other discharges of a similar volume and type.

MHCSD—WDR COMMENT #24, Pages 29-30, Monitoring and Reporting Program, Receiving Water Monitoring Requirements, VIII.A.1. A request was made to eliminate receiving water monitoring (and footnote 7) for aluminum, ammonia, bis(2-ethylhexyl)phthalate, iron, mercury, and trihalomethanes because they are all regulated with end of pipe effluent limitations, and the rationale for the footnotes was not apparent. A request was also make to

eliminate receiving water monitoring for standard minerals and priority pollutants because it is required for the effluent and not needed for the receiving waters.

RESPONSE: For the agenda version, staff deleted receiving water monitoring for aluminum, bis(2-ethylhexyl)phthalate, iron, and mercury, however we have reconsidered our position and determined that monitoring for total mercury should remain in the Order. In response to comments received, additional monitoring for methyl mercury, total organic carbon, total nitrogen, and phosphorous are also being added as late revisions.

CALIFORNIA SPORTFISHING PROTECTION ALLIANCE (CSPA) COMMENTS

CSPA requested Designated Party status for this proceeding, and it will be granted as requested.

CSPA COMMENT #1: The receiving waters are seriously degraded and habitat for listed species and require the most stringent protection.

RESPONSE: The Order recognizes that the receiving waters are degraded, and it provides stringent protection of water quality, by not granting dilution credit for effluent limitations. Responses to specific issues raised in this regard are addressed below.

CSPA COMMENT #2: The proposed permit does not comply with the CTR or SIP which prohibits compliance schedules for new or recommencing dischargers.

RESPONSE: The main issue to be addressed by this comment is whether or not the discharge would be considered a "New Discharge" or not.

40 CFR 122.2 states," "New discharger" means any building, structure, facility, or installation: (a) From which there is or may be a "discharge of pollutants:" (b) That did not commence the "discharge of pollutants" at a particular "site" prior to August 13, 1979; (c) Which is not a "new source;" and (d) Which has never received a finally effective NPDES permit for discharges at that "site…" MSCSD does not meet the definition of New Discharger pursuant to 40 CFR 122.2, because it has a finally effective NPDES permit for discharges at that site.

The SIP provides an alternate definition of a "New Discharger", and states, "New Discharger includes any building, structure, facility, or installation from which there is, or may be, a discharge of pollutants, the construction of which commenced after the effective date of this Policy." MHCSD commenced construction of the Phase I WWTP in 2001, and the Phase II WWTP after that date. Because construction began after May 8, 2000, MHCSD is considered a New Discharger for purposes of compliance with the SIP. In conformance with the SIP, we will remove the compliance time schedule from the permit. If

the Board agrees, the TSO may be brought back for reconsideration to include a time schedule for compliance, not to exceed May 8, 2010.

CSPA also noted that it believed 40 CFR 122.4(i) prohibited the issuance of a NPDES permit to a "New Source" or a "New Discharger", if the discharge from its construction or operation will cause or contribute to a violation of water quality standards. As discussed above, MHCSD is not a 'New Discharger" pursuant to 122.2. It is also not a "New Source", because municipal treatment plants are not subject to standards of performance under Section 306 of the Clean Water Act.

CSPA COMMENT #3: The proposed permit does not contain a protective or legal effluent limitation for EC, TDS or Chloride.

RESPONSE: The Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes.

CSPA COMMENT #4: The Reasonable Potential Analyses fail to comport with federal requirements and must be recalculated.

RESPONSE: CSPA is challenging the validity of the SIP to determine reasonable potential to cause or contribute to an exceedance of a water quality standard. CSPA contends that multiplier factors as outlined in the *USEPA Technical Support Document for Water Quality Based Toxics Control* be used rather than the multiplier of "1" in the SIP. The SIP is the protocol staff must use when evaluating reasonable potential for CTR constituents. This permit action is not an appropriate venue to challenge a Policy that has been in effect for over 6 years.

CSPA COMMENT #5: The antidegradation analysis is woefully inadequate and inconsistent with federal and state antidegradation policy.

RESPONSE: Order No. 98-192 authorized a discharge up to 5.4 mgd of wastewater from the Phase II and Phase III WWTPs. The proposed permit renewal does not provide for any expansion from previously authorized discharge flows. It incorporates effluent limitations and requirements that are at least as stringent (and in many cases more stringent) than in the previous permit.

In regards to Antidegradation regarding salinity of the discharge, the Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach

constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes.

CSPA COMMENT #6: The limitation for acute toxicity is inconsistent with Basin Plan and federal requirements. The focus of this comment is on the appropriateness of the acute toxicity effluent limitation (Effluent Limitation No. IV.A.1.i.), which states:

"i. Acute Whole Effluent Toxicity. Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

Minimum for any one bioassay----------70%

Median for any three or more consecutive bioassays---90%"

CSPA contends that the acute toxicity effluent limitation is inappropriate because allowing 30% mortality in acute toxicity tests allows that same level of mortality in the receiving stream, in violation of federal regulations and contributes to an exceedance of the Basin Plan's narrative water quality objective for toxicity.

RESPONSE: The acute toxicity effluent limitations are consistent with numerous NPDES permits issued by the Central Valley Regional Water Board and throughout the state and are appropriate. The proposed Order as a whole contains several mechanisms designed to ensure that the discharge does not cause toxicity in the receiving water. The Order contains Receiving Water Limitation V.A.14., which proscribes the discharge from causing toxicity in the receiving water. Additionally, end-of-pipe effluent limits are included for all toxic pollutants with reasonable potential to cause or contribute to an exceedance of water quality objectives in the receiving water. Where appropriate, these limits are developed based on aquatic life toxicity criteria.

In addition to chemical-specific effluent limitations, the proposed Order requires chronic whole effluent toxicity (WET) testing that identify both acute and chronic effluent toxicity. WET testing is necessary because chemical-specific effluent limitations do not address synergistic effects that may occur when the effluent mixes with receiving waters, synergistic effects of mixtures of chemicals, or toxicity from toxic pollutants for which there are no aquatic life toxicity criteria. To address toxicity detected in WET testing, the proposed Order includes a provision that requires the City to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity. If the discharge exhibits a pattern of toxicity, the City is required to initiate a Toxicity Reduction Evaluation and take actions to mitigate the impact of the discharge and prevent reoccurrence of toxicity.

The acute toxicity effluent limitations establish additional thresholds to control toxicity in the effluent: survival in one test no less than 70% and a median of no less than 90% survival in three consecutive tests. Some in-test mortality can occur by chance. To account for this, the test acceptability criteria for the acute test allows ten percent mortality (requires 90% survival) in the control. Thus, the acute toxicity effluent limitation allows for some test variability, but imposes ceilings for exceptional events (i.e. 30% mortality or more), and for repeat events (i.e., median of three events exceeding mortality of 10%).

CSPA COMMENT #7: The Order fails to contain an effluent limitation for chronic toxicity.

RESPONSE: The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) contains implementation gaps regarding the appropriate form and implementation of chronic toxicity limits. This has resulted in the petitioning of a NPDES permit in the Los Angeles Region[1] that contained numeric chronic toxicity effluent limitations. As a result of this petition, the State Water Board adopted WQO 2003-012 directing its staff to revise the toxicity control provisions in the SIP. The State Water Board states the following in WQO 2003-012, "*In reviewing this petition and receiving comments from numerous interested persons on the propriety of including numeric effluent limitations for chronic toxicity in NPDES permits for publicly-owned treatment works that discharge to inland waters, we have determined that this issue should be considered in a regulatory setting, in order to allow for full public discussion and deliberation. We intend to modify the SIP to specifically address the issue. We anticipate that review will occur within the next year. We therefore decline to make a determination here regarding the propriety of the final numeric effluent limitations for chronic toxicity contained in these permits.*" The process to revise the SIP is currently underway. Proposed changes include clarifying the appropriate form of effluent toxicity limits in NPDES permits and general expansion and standardization of toxicity control implementation related to the NPDES permitting process.

Since the toxicity control provisions in the SIP are under revision it is infeasible to develop numeric effluent limitations for chronic toxicity. Therefore, the proposed Order requires that the Discharger meet best management practices for compliance with the Basin Plan's narrative toxicity objective, as allowed under 40 C.F.R. 122.44(k). The proposed Order includes Provisions VI.C.2.a., which contains a numeric chronic toxicity monitoring trigger and explicit protocols for accelerated monitoring and toxicity reduction evaluation implementation if a pattern of effluent toxicity is observed. This provision requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity.

CSPA COMMENT #8: The Order violates state and federal endangered species acts.

RESPONSE: CSPA provided the following comments, "…*the Order allows acute toxicity, fails to limit chronic toxicity and, as we discuss below, includes effluent limits that are not protective of listed species. The Order is likely to result in the illegal "take" of listed species and will likely result in the destruction or adverse modification of critical habitat in violation of Section 9 of the federal Endangered Species Act (ESA).*" CSPA further states the following regarding the purported inadequate effluent limitations, "*The inadequate toxicity, temperature, ammonia, and dissolved oxygen limits in the Order should be revised to be*

[1] In the Matter of the Review of Own Motion of Waste Discharge Requirements Order Nos. R4-2002-0121 [NPDES No. CA0054011] and R4-2002-0123 [NPDES NO. CA0055119] and Time Schedule Order Nos. R4-2002-0122 and R4-2002-0124 for Los Coyotes and Long Beach Wastewater Reclamation Plants Issued by the California Regional Water Quality Control Board, Los Angeles Region SWRCB/OCC FILES A-1496 AND 1496(a)

fully protective of listed species." Regional Water Board staff disagree with these statements. The proposed Order contains numeric effluent limitations for acute toxicity, narrative limitations for chronic toxicity, and a receiving water limitation for toxicity that states the discharge shall not cause "*Toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances.*" The proposed Order also contains water quality-based effluent limitations for ammonia, dissolved oxygen, and temperature.

For clarity, the Regional Water Board staff will propose the following late revision to be included in the Permit at the end of Section III.C.8 of the Fact Sheet:

"*This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.*"

CSPA COMMENT #9: Temperature limitations violate the Basin Plan, Thermal Plan and federal regulations.

RESPONSE: The temperature effluent limitation and receiving water limitations in the proposed Order are applied based on the Thermal Plan's water quality objectives for temperature. The *Tidal Dilution Study of the Mountain House Wastewater Treatment Plant Discharge into Old* River, dated September 2005, concludes that the discharge is expected to remain in compliance with thermal limitations. In addition, Provision C.2.b. requires the Discharger to submit a technical report within 6 months of the discharge to surface waters exceeding 1.25 mgd as a monthly average flow, providing evidence that the discharge is in full compliance with the Thermal Plan requirements. Violations would be subject to appropriate enforcement action.

CSPA COMMENT #10: Monitoring requirements are inadequate.

RESPONSE: CSPA contends that methylmercury monitoring should be required in the proposed Order. We are including the requirement to monitor for total mercury in the Order, however we agree that methylmercury monitoring is also warranted. The monitoring will assist in the development of the TMDL, and will be useful in the implementation of the TMDL after adoption. Therefore, staff will propose new influent, effluent, and receiving water monitoring for methylmercury as a late revision to the proposed Order. Additional monitoring for sulfate, as suggested by CSPA, is not warranted at this time.

CSPA also argues that 24-hour composite samples for metals and semi-volatile constituents should be required in the proposed Order. As a late revision to the permit, Regional Water Board staff will propose that the monitoring for metals and semi-volatile constituents be changed to require 24-hour composite samples.

CSPA also requested continuous monitoring for EC. The proposed Order required monthly monitoring for EC, whereas weekly monitoring is more appropriate and is the frequency proposed for receiving water monitoring. As a late revision, staff proposes to change the effluent monitoring for EC to weekly, which is adequate to determine compliance with the interim limitation. As a result of the proposed EC studies, the Discharger may be required to monitor more frequently to adequately perform the required studies. The Discharger is required to submit a workplan for the EC studies. The frequency of EC monitoring necessary for the studies will be evaluated at that time.

CSPA COMMENT #11: The Permit fails to adequately discuss CEQA.

RESPONSE: Order No. 98-192 authorized a discharge up to 5.4 mgd of wastewater from the Phase II and Phase III WWTPs. The proposed permit renewal does not provide for any expansion from previously authorized discharge flows. The discharge is not a "new discharge" pursuant to 40 CFR 122.2. The action to adopt an NPDES permit is exempt from the provisions of the Public Resources Code in accordance with Section 13389 of the CWC.

CSPA COMMENT #12: A significant number of the Effluent Limitations are not limited for mass.

RESPONSE: Federal regulations at 40 CFR 122.45(f)(1) and (2), states the following regarding effluent limitations for publicly owned treatment works:

"(1) All pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass ***except****:*

(i) For pH, temperature, radiation, or other pollutants which cannot appropriately be expressed by mass;

(ii) When applicable standards and limitations are expressed in terms of other units of measurement; *or*

(iii) If in establishing permit limitations on a case-by-case basis under § 125.3, limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.

(2) Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations." (emphasis added)

The proposed Order includes effluent limitations expressed in terms of both mass and concentration for some constituents. In addition, pursuant to the exceptions to mass limitations provided in 40 CFR 122.45(f)(1), some effluent limitations are not expressed in terms of mass, such as pH and temperature, and when the applicable standards are expressed in terms of concentration (e.g. CTR criteria and MCLs) and mass limitations are not necessary to protect the beneficial uses of the receiving water.

Mass limitations are necessary for some constituents to ensure protection of the beneficial uses of the receiving water and/or to ensure the proper operations of the treatment facilities. Therefore, in the proposed Order, effluent limitations for oxygen-demanding substances and bioaccumulative constituents have limitations in terms of mass. However, for some constituents there are no water quality benefit for limiting the mass, thus, only limitations in terms of concentration were included in the proposed Order.

CSPA COMMENT #13: Effluent limits for metals were calculated using an incorrect hardness value and must be recalculated.

RESPONSE: Staff utilized a hardness of 100 mg/l as CaCO3, whereas CSPA contends that 91 mg/l is the appropriate worst case receiving water hardness. Staff agrees that an error was made in the original calculations, but as shown below, using a hardness of 100 mg/L or 91 mg/L makes no difference in the reasonable potential calculation. The criteria for copper, lead, nickel, and zinc are all hardness dependent. The table below shows that the MEC and the background concentration are well below the criteria for each constituent, using either hardness value, so no changes are warranted.

		Criterion				
Metal	**units**	**H = 90**	**H=100**	**B**	**MEC**	**RPA**
Copper	µg/L	8.5	9.6	7.1	6.8	No
Lead	µg/L	2.8	2.8	1.9	1	No
Nickel	µg/L	48	55.8	5.2	5.8	No
Zinc	µg/L	110	100	10	10	No

CSPA COMMENT #14: The permit has no Receiving Water Limitation for turbidity.

RESPONSE: The effluent limitation for turbidity is for an average less than 2 NTU, and is effective immediately. The effluent limitation is vastly more stringent than the receiving water objective. Therefore, when the discharge is meeting the turbidity effluent limitations reasonable potential to exceed the Basin Plan's water quality objective for turbidity would not exist.

CSPA COMMENT #15: The permit inappropriately allows the permit to be reopened to reassess assimilative capacity of the receiving stream while end-of-pipe limitations may not be sufficiently stringent.

RESPONSE: No dilution was granted in the proposed Order. The reopener would only allow the permit to be reopened if adequate information, based on real-time monitoring data, was submitted that would support granting dilution credit. The information would be available for public review and comment by CSPA, as would any permit modifications.

CSPA COMMENT #16: The mercury mass loading limitation calculation is incorrect and the Permit must include a limitation for methylmercury.

RESPONSE: CSPA contends that the method for determining compliance with the total mercury interim effluent limitation allows the Discharger to increase mercury loadings to Old River. CSPA asserts that the sum of peak mercury concentrations and the total monthly discharge flow should be used for the calculation. The conversion from concentration to mass is performed using the following equation:

Concentration (mg/L) x Flow (mg/month)x 8.34 (conversion factor) = Mass (lbs/month)

The proposed Order requires monthly mercury monitoring, so in most cases the total mass loading of mercury would be calculated using the concentration of a single sample and the total monthly flow. When more than one sample is collected during a month, averaging the constituent concentrations is appropriate for calculation of the total monthly loading, because it would represent the best estimation of mercury concentrations discharged for the month. If the constituent concentrations were summed, it would significantly overestimate the total monthly loading, due to the summing of concentrations prior to multiplication by the total discharge flow.

CSPA also contends that the interim limitation for total mercury was based upon the full permitted flow, whereas it believes that the appropriate mercury cap should be zero, at best the limit cannot be set higher than the Phase II level of 3.0 mgd. The proposed interim mass limitation was based on existing performance and the design flow rate of the permitted facility, which is 5.4 mgd. The limitation is consistent with limits established for other Dischargers in the region.

Finally, CSPA contends that an interim effluent limitation for methylmercury should be included in the proposed Order. The 303(d) listing of the Delta is for mercury. Although Regional Water Board staff is developing a methylmercury TMDL, the TMDL is under development and has not been adopted by the Regional Water Board. Pursuant to Section 2.1.1. of the SIP, the proposed Order contains an interim mass limitation on total mercury to maintain current loadings pending TMDL development. The proposed Order also contains a reopener provision (Section VI.C.1.b.) to include effluent limitations for mercury (total or methyl) upon adoption of a TMDL.

CSPA contends that monitoring for methylmercury should be included in the proposed Order. Staff agrees that methylmercury monitoring is warranted, and will propose influent, effluent, and receiving water monitoring as a late revision to the proposed Order.

CSPA SUPPLEMENTAL COMMENT #1: CSPA comments that federal regulations at 40 CFR section 124.12(c) requires the Regional Water Board to accept written comments up to the time of a hearing.

RESPONSE: The commenter incorrectly interprets the federal regulations. The federal regulations that apply to NPDES permits specifically identify which regulations apply to states and which regulations do not apply to states. According to 40 CFR section 123.25(a), the states must have legal authority to implement certain listed regulations and may modify those regulations to make them more stringent. Section 124.12(c) is not listed in section 123.25(a) as a regulation that the state is required to implement. It must implement only section 124.12(a). With respect to acceptance of comments, the Regional Board must implement 40 CFR section 124.10(b), which requires the state to allow at least 30 days of public comment, but does not require the state to allow public comment up to the date of the hearing.

CSPA SUPPLEMENTAL COMMENT #2: The Regional Water Board has no authority to issue compliance schedules for CTR constituents and the proposed compliance schedules and interim effluent limits are illegal.

The commenter states that the CTR provisions in 40 CFR 131.38(e) allowing compliance schedules and interim effluent limitations for CTR constituents have expired. Specifically, the commenter cites 40 CFR 131.38(e)(8) which states, "*[t]he provisions in this paragraph (e), Schedules of compliance, shall expire on May 18, 2005.*" Therefore, the commenter concludes that the compliance schedules and interim effluent limitations established in the proposed Order are illegal and must be removed.

RESPONSE: The SIP is the governing policy in California for implementing the CTR and it allows compliance schedules. USEPA approved the section of the SIP concerning compliance schedules. Although the CTR provisions for compliance schedules expired, that does preclude the State Water Board from establishing its own version of compliance schedules since the SIP is intended to implement the CTR. The SIP allows compliance schedules that are short as practicable but in no case (1) allows more than 5 years to come into compliance with CTR-based effluent limitations and (2) allows the compliance schedule to extend beyond 10 years from the effective date of the SIP (18 May 2000) to establish and comply with CTR-based effluent limitations. The proposed Order, therefore, includes a time schedule to comply with CTR-based effluent limitations by 18 May 2010 (i.e., 10 years from SIP effective date). In addition, the proposed Order requires the discharger to (1) provide a justification for the compliance schedule in accordance with Section 2.1 of the SIP, (2) comply with interim effluent limitations (as required by the SIP), and (3) submit quarterly progress reports.

CSPA SUPPLEMENTAL COMMENT #3: CSPA comments that the Regional Board does not have authority under the Clean Water Act to include compliance schedules in NPDES permits for water quality based effluent limits. Clean Water Act section 301(b)(1)(C) establishes a

deadline of July 1, 1977, even for new standards established after that deadline. The Clean Water Act only allows compliance schedules in limited circumstances. Effluent limitations may not be less stringent than required by the Clean Water Act.

RESPONSE: The commenter is correct that in most circumstances the Regional Board may not include compliance schedules in NPDES permits. In general, an NPDES permit must include final effluent limitations that are consistent with Clean Water Act section 301 and with 40 CFR 122.44(d). There are exceptions to this general rule. The State Water Board has concluded that where the Regional Board's Basin Plan allows for schedules of compliance and the Regional Board is newly interpreting a narrative standard, it may include schedules of compliance in the permit to meet effluent limits that implement a narrative standard. See In the Matter of Waste Discharge Requirements for Avon Refinery (State Board Order WQ 2001-06 at pp. 53-55). See also *Communities for a Better Environment et al. v. State Water Resources Control Board,* 34 Cal.Rptr.3d 396, 410 (2005). The Basin Plan for the Sacramento and San Joaquin Rivers includes a provision that authorizes the use of compliance schedules in NPDES permits for water quality objectives that are adopted after the date of adoption of the Basin Plan, which was September 25, 1995. See Basin Plan at page IV-16. Consistent with the State Water Board's Order in the CBE matter, the Central Valley Regional Board has the discretion to include compliance schedules in NPDES permits when it is including an effluent limitation that is a "new interpretation" of a narrative water quality objective. This conclusion is also consistent with the United States Environmental Protection Agency policies and administrative decisions. See, e.g., *Whole Effluent Toxicity (WET) Control Policy.* The Regional Board, however, is not required to include a schedule of compliance, but may issue a Time Schedule Order pursuant to Water Code section 13300 or a Cease and Desist Order pursuant to Water Code section 13301 where it finds that the discharger is violating or threatening to violate the permit. The Regional Board will consider the merits of each case in determining whether it is appropriate to include a compliance schedule in a permit, and, consistent with the Basin Plan, should consider feasibility of achieving compliance, and must impose a schedule that is as short as practicable to achieve compliance with the objectives, criteria, or effluent limit based on the objective or criteria.

SOUTH DELTA WATER AGENCY

The SDWA requested Designated Party Status for this proceeding, and it will be granted as requested.

SDWA COMMENT #1: The Order lists Section 122.44(d) of the Federal Regulations as requiring limitations on pollutants that will contribute to an exceedance of numeric water quality standards. The Regional Board should better explain its reasoning for allowing salinity (EC) discharges well in excess of the standard into areas that will likely have regular exceedances of that standard.

RESPONSE: The Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes.

SDWA COMMENT #2: On pages 5, the list of impairments for the Delta omits EC and TDS.

RESPONSE: The eastern portion of the Delta is not listed as impaired for EC or TDS on the 2002 CWA Section 303(d) List of Water Quality Limited Segments. The western portion is, however, listed for EC. After further review it was determined that an error was made in evaluating the dividing line from the western to the eastern portion of the Delta for Old River. We discovered that the western portion extends east up Old River. Therefore, Mountain House is located in the western portion of the Delta for purposes of the 303(d) list. We have made appropriate revisions to address this.

SDWA COMMENT #3: In referring to the "Anti-Backsliding" requirements of the CWA, the Order states on page 7 that its effluent limitations are at least as stringent as the previous limitations. This is difficult to understand. Attachment F includes a description of existing requirements. This description lists no previous limit on EC discharges (which doesn't seem correct). This does not appear to fully explain compliance with the Anti-Backsliding, or non-degradation policies of State and Federal law.

RESPONSE: The statement in Finding O of the proposed Order is accurate that "All effluent limitations are at least as stringent as the effluent limitations in the previous Order. The current Order regulating the discharge (WDR Order No. 98-192) does not contain an effluent limitation for EC, whereas the proposed Order caps the load and requires reductions.

SDWA COMMENT #4: Section V. beginning on page 12 lists receiving water limitations, but omits salinity/EC. The Southern Delta has three compliance locations for EC as set forth in the

1995 Water Quality Control Plan and implemented in D-1641. If the Regional Board chooses to deal with the salinity issue later in the Order, it should clarify in Section V. why EC is not addressed in that section.

RESPONSE: The Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes.

SDWA COMMENT #5: Pages 19 and 21-23 identify a reporting condition which requires the discharger to investigate the "appropriate EC levels to protect the beneficial uses of agricultural supply in areas irrigated with Old River waters in the vicinity of the discharge." The report seeks information on "sodium adsorption ratios" "effects of rainfall and flooding on leaching" and how "climate, soil chemistry" and "background water quality" may affect agricultural beneficial uses. Such an investigation and its results are contrary to not only existing water quality objectives, but also to the statutory process by which water quality objectives are set. Embarking on a procedure by which the Regional Board may allow discharges in excess of establish and adjudicated standards is contrary to the legal requirements of both the Porter-Cologne Act and the Clean Water Act.

The water quality necessary to protect agricultural beneficial uses in the South Delta was determined through an open and public process which encompassed thousands of man-hours, extensive technical review, and evidentiary hearing before the State Water Resources Control Board. The information sought has already been produced and is part of the SWRCB's records.

Attached hereto are SDWA's exhibits, testimony and transcripts for a CDO hearing conducted earlier this year before the SWRCB. As the materials indicate, the conditions in the South Delta are such that the diversity of soils prevent adequate leaching and result in the build-up of salts in the soils. The only confusion on this issue is the Regional Board's apparent desire to ignore the data.

The Regional Board cannot attempt to escape the legal process involved and requirements of issuing waste discharge permits by having a permittee produce its own analysis of what water quality protects any particular beneficial use. The standards have been set; neither the Regional Board or a discharger can unilaterally change them. If the Regional Board chooses to delay or excuse compliance with water quality standards it may do so only by complying with the law. It can't do so by conducting (or ordering) its own non-public study as to what is necessary to protect beneficial uses. The subject provision must be stricken or it will be overturned in a judicial review of the final Order.

RESPONSE: The Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The

Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those change

SDWA COMMENT #6: The Order should explain why an increase in discharges should be allowed before any actions are implemented which actually address the discharge of salinity in excess of current standards.

RESPONSE: The current WDRs Order No 98-192 authorize a discharge up to 5.4 mgd to Old River from the Phase II and III WWTPs with no requirements to control salinity. The proposed Order does not increase flows, and it includes requirements to control salinity.

SDWA COMMENT #7: Additional monitoring locations are required … the monitoring stations should be situated so that they can monitor the channel conditions regardless of whether barriers are in and operating or not. Additional stations on Old River, Doughty Cut/Salmon Slough area and Grant Line Canal would seem warranted.

In order to fully monitor the salinity being discharged and its effects on local beneficial uses, it would seem proper to have numerous, continuous monitoring. Without such monitoring, the effluent could regularly be far in excess of the standard or the permit term.

RESPONSE: Receiving water monitoring is required to evaluate compliance with permit conditions. Adequate receiving water monitoring has been required in the proposed Order to achieve this. Additional monitoring stations in Old River or Doughty Cut/Salmon Slough area is not necessary, and no technical justification for the additional locations was provided. In order to clarify the established monitoring locations in this Order, Attachment B has been revised to include monitoring locations.

SDWA COMMENT #8: The Order should require chronic toxicity testing no less often or less stringent than under the Ag Waiver program of the Regional Board. The local Coalition is required to test at numerous sites after two winter storm events, and six times during the "irrigation" season. All these test include toxicity testing of three species. Given the continuous discharge of the City effluent, the Order appears inadequate.

RESPONSE: The requirement for quarterly chronic toxicity testing is adequate for the Facility. If toxicity is observed, the proposed Order requires accelerated monitoring and initiation of a toxicity reduction evaluation, and elimination of the toxicity. The monitoring requirements for chronic whole effluent toxicity, combined with the provisions for toxicity identification and reduction, are adequate in the proposed Order.

SDWA COMMENT #9: The Order references the SWRCB Anti-degradation policy set forth in Resolution 68-16. This policy requires the maintenance of high quality waters until it is demonstrated that (i) a change (degradation) is consistent with the maximum benefit to the people of the State, (ii) will not unreasonably affect beneficial uses, and (iii) will not result in

quality less than that described in the Regional Board's policies. The Order states that the degradation allowed under the proposed discharge requirements meets these criteria, but does not explain how.

It states the degradation is consistent with the maximum benefit to the people of the state. There is no analysis on which such a conclusion is based. Benefit to the people is not a function of comparing how many people are harmed to how many are not. Mountain House's growth may be a benefit, but the cost associated with that growth must include the protection of the waters of the state. The damage to the local agriculture from increased discharges of increased salinity also has many adverse impacts to the people of the state. Again, the conclusion is not supported.

The Order also states that discharge is a necessary function of growth, but makes no effort to connect this to the Resolution 68-16 criteria. Similarly, the Order notes that the eventual permit would result in "a high level of treatment of sewage waste." Again, this may be the case, but it does not address the applicable criteria. The authors appear to be mis-characterizing an economic analysis which they assumedly think shows it is better to allow degradation than to pay for treatment. If such a conclusion is possible, it would be a necessary component of the City's EIR for its general plan or other planning and environmental documents supporting its growth. Merely stating the conclusions in the brief analysis of the Order is inappropriate and cannot substitute for a necessary follow-on EIR if the previous documents failed to analyze the adverse impacts from discharges.

The Order fails to examine the other criteria in the anti-degradation policy; not unreasonably affecting beneficial uses and not being in conflict with existing Regional Board policies. Discharges of 1875 EC when the standard is 700 EC is necessarily an unreasonable affect on agricultural beneficial uses. Further, since the Regional Board policies currently specify 450 TDS and 700 EC as being necessary to protect beneficial uses, we see no way the Order can conclude it complies with Resolution 68-16.

RESPONSE: The Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes.

SDWA COMMENT #10: Page F-11 notes that the Order establishes an interim effluent limit of 1000 EC. However, on page 12 the Order lists 1875 EC as the interim effluent limit. Which is the actual limit?

RESPONSE: The interim limit has been reduced from 1875 µmhos/cm to 1,300 µmhos/cm. The intermediate goal (to be reached by the end of the permit term) is 1,000 µmhos/cm. See also MCHSD WDR Comment 6, above.

SDWA COMMENT #11: The Order notes that the interim effluent limit of 1000 EC is "essentially the same as the short term secondary maximum contaminant level . . . for protection of municipal and domestic supply" (1000 EC). There is no apparent reason why a municipal and domestic limit is relevant to discharges in excess of existing standards. No reason is given for allowing a greater EC than the municipal and domestic limits.

Further, the draft Order for the City of Tracy's NPDES permit lists 2200 EC as being the secondary maximum containment level for protection of municipal and domestic supply. What is the correct MCL and why are the two communities treated differently?

RESPONSE: As noted in the response to SDWA Comment #10, the interim limitation is 1,300 µmhos/cm, and is based on the performance of the Facility. The purpose of the interim effluent limit is to ensure the EC of the discharge does not increase, and it is not based on any MCL. The statement was made as a means of comparison, but not a basis for the limit.

The interim performance-based EC limitation proposed for MHCSD is more stringent than the limitation proposed for City of Tracy because the MHCSD current performance provides significantly less salinity in its discharge as compared with that of the City of Tracy.

SDWA COMMENT #12: Table F-3 includes three footnotes, one of which is associated with EC, TDS, and Chloride. The footnote (2) appears to set forth an argument as to why existing water quality objectives for agricultural beneficial uses are not needed. It speculates that the agricultural beneficial users may need to permanently change their crops so that the City can discharge at over three times the standard. It also speculates that, contrary to the evidence, testimony and conclusions of the SWRCB, South Delta agricultural interests can simply change their irrigation methods and live with the higher concentrations of salt. Finally, it suggests that maintaining maximum yields is not necessary because Mountain House wants to grow. It is strange to have such language in the analysis of impacts to water quality. It indicates both a bias against agriculture and a lack of understanding of the issues facing the South Delta and water quality in general.

Further, the Order fails to calculate the mass loading of salts resulting from the increase and any information on the increase. It is a simple calculation to determine how much salt is in the increased discharge.

RESPONSE: The Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes.

SDWA COMMENT #13: The Order notes that historic data indicates the effluent ranges from 920-1600 EC but gives none of the actual data. It appears that the discharge is almost always above the September - March standard and always above the April - August standard.

RESPONSE: The data noted is the effluent data collected since initiation of the Discharge. Staff determined that, after the initial startup of the Phase I WWTP, the EC dropped significantly. After eliminating data from the startup period, a new interim limit of 1300 was calculated. Consequently, the interim limitation of 1875 was reduced to 1300 µmhos/cm.

SDWA COMMENT #14: On Page F-47 the Order stated that the nearest monitoring station is "approximately four miles west (downstream) of the discharge" point. The statement is incorrect. The discharge is four miles west of the monitoring station at Tracy Blvd. Bridge.

RESPONSE: The tentative Order had an error. A late revision will be proposed to state "…approximately 7 miles east (upstream) of the discharge."

SDWA COMMENT #15: The Order also states that "D-1641 water quality objectives are not applicable throughout Delta waters, but are applicable only at monitoring (sic) locations prescribed in D-1641." This is incorrect. The Objectives are monitored at compliance locations, but that does not mean exceedances are allowed at all other locations in the South Delta. One wonders why the Regional Board would suggest a position that would allow water quality to degrade between compliance locations.

RESPONSE: The Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes.

SDWA COMMENT #16: The Order purports to require the discharges to meet compliance schedules and use BPTC's and "result in compliance with water quality objectives" (page F-11). To the contrary, the Order requires the discharger investigate what salinity is needed for local agriculture, and then anticipates meeting this to-be-developed criteria, not meet the water quality objectives.

Strangely, the Order makes no investigative or analysis of how the discharge will effect the existing objectives. Neither does it require the discharges to conduct such investigation or analysis. The previous study (not submitted to SDWA) referenced on page F-21 apparently suffers from limited data and false assumptions (e.g., all four temporary barriers in place through July). The conclusion though is that the discharge area is stagnant. Rather than this being a reason to address high saline discharges, the Order simply concludes there is "no basis for a dilution credit."

RESPONSE: The Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes.

SDWA COMMENT #17: The Order incorrectly summarizes the effects of salinity on crops. Under laboratory conditions, the 450 TDS and 700 EC limits do apply to salt sensitive crops with adequate leaching. However, the various soil types in the South Delta, combined with varying water tables results in these limits being necessary to protect most other crops, including but not limited to alfalfa, grapes, and walnuts. The Order tries to suggest that only a few crops need this level of protection whereas the evidence confirms most crops need the protection.

RESPONSE: The Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes.

SDWA COMMENT #18: Attachment F, beginning on page F-15 and continuing describes the temporary and proposed barrier programs in the South Delta. It also references modeling and other investigations performed to analyze the effects of the effluent discharge to the waters of Old River and other South Delta channels. The descriptions contained some inaccuracies and fail to include the most recent and reliable information.

Before the proposed permitting can go forward, the permittee and the Regional Board need to consider actions that might partially mitigate the adverse effects which will result from the increase in discharge and allowed increased in concentration of the discharge. The parties should consider such things as some sort of dilution program or other actions to decrease salinity concentrations. One such action would supporting the addition of low lift pumps to the permanent barriers which would augment the incoming tidal flows and provide mixing and dilution. Other actions may also be possible and must be investigated.

RESPONSE: The Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes.

CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR)

DWR COMMENT: "The Department of Water Resources (DWR) strongly objects to allowing MHCSD to begin discharging to Old River when their wastewater is not in compliance with water quality objectives… for Chloride, Specific Conductance (EC), and Total Dissolved Solids…Because this discharge is new, any contaminants it contains are new loads to the receiving water.

"The Draft Order does not implement the water quality objectives of the *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (May 1995)*. In implementing the Water Quality Control Plan (WQCP), Water Rights Decision 1641 requires DWR and Reclamation to meet the salinity objectives of 700 µmhos/cm from April through August and 1000 µmhos/cm from September through March at the south Delta stations. … The Draft Order is inconsistent with the approach intended by the WQCP and Water Rights Decision 1641…to control…discharges of salt…"

"This Draft Order allows…Mountain House to begin degrading water quality in the south Delta…It alleviates Mountain House from any responsibility for degrading water quality in Old River…DWR…per the CDO, is nevertheless being held responsible for meeting the water quality objectives for threatened violations under threat of project curtailment or Administrative Civil Liabilities.

"I urge you not to allow Mountain House to discharge to Old River until its effluent meets applicable water quality objectives.

RESPONSE: The Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes.

CALIFORNIA URBAN WATER AGENCIES (CUWA)

CUWA COMMENTS #1: Although, the tentative waste discharge requirements establish effluent limitations for ammonia, nitrate, and nitrite, the allowable concentrations in the effluent are not based on the biostimulatory impacts of wastewater. In addition, phosphorus is not addressed in the tentative waste discharge requirements.

RESPONSE: Numeric water quality objectives currently do not exist for the biostimulatory impacts of nitrogen and phosphorus. The Basin Plan contains a narrative water quality objective for biostimulatory substances, which states, "*water shall not contain biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.*" A receiving water limitation for biostimulatory substances is included in the proposed Order to implement this Basin Plan objective. Even though the effluent limitations for ammonia, nitrate and nitrite in the proposed Order were not developed based on biostimulatory impacts, compliance with the proposed Order would represent a significant reduction in biostimulatory substances discharged to Old River.

There is not adequate information at this time to determine the biostimulatory impacts of the Mountain House discharge. We understand that this is an important issue and will propose to add new effluent and receiving water monitoring requirements for total phosphorus and total nitrogen, as a late revision to the permit, to better understand the biostimulatory impacts of the discharge.

CUWA COMMENTS #2: Salinity is a key constituent of concern due to the impacts on downstream water use and the impacts on the ability of the State Water Project and Central Valley Water Project to meet Delta salinity objectives.

RESPONSE: The Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes.

CUWA COMMENTS #3: CUWA requests that the Regional Water Board add the following reopener provision to Section VI.C.1 of the waste discharge requirements: "Central Valley Drinking Water Policy. If water quality objectives for organic carbon, nutrients, salinity, bromide, and/or pathogens are adopted to protect drinking water supplies in the Central Valley, this permit may be reopened and modified to require that these objectives be met."

RESPONSE: Staff will propose that a reopener provision be added as a late revision.

CUWA COMMENTS #4: CUWA also requests that the Regional Water Board include a requirement to immediately notify downstream drinking water agencies if there are spills of

untreated or partially treated wastewater from the Mountain House Wastewater Treatment Plant or collection system that reach Delta waters. Attachment 1 is a list of the agencies that should be notified…: Alameda County Flood Control and Water Conservation District, Zone 7; Alameda County Water District; Santa Clara Valley Water District; Contra Costa Water District; California Department of Water Resources.

RESPONSE: Due to the close proximity of drinking water intakes downstream of the discharge, immediate notification of downstream water agencies should be required by the proposed Order to minimize any adverse effects resulting from spills of untreated or partially treated wastewater from the Facility or collection system that reach Delta waters. We are proposing a late revision to clarify this intent. The proposed Order, under Regional Water Board Standard Provisions Section VI.A.2.f., is now proposed to state the following:

"*f. The Discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge or sludge use or disposal, and adequate public notification to downstream water agencies or others who might contact the non-complying discharge*."

The City must maintain an adequate spill response plan that includes a list of persons to notify in the event of a permit violation. The MHCSD needs to update its spill response plan to include immediate notification of the requested downstream water agencies in the event of a spill.

METROPOLITAN WATER DISTRICT (MWD)

MWD COMMENT #1: MWD asks that the Regional Water Board establish a monthly average effluent limitation for total inorganic nitrogen, assuming 80 percent removal, and that Tracy implement any modifications to the nitrification/denitrification treatment train to achieve the limitation. We further ask that the Regional Water Board establish limits for total phosphorous, considering the US EPA's guidelines for nutrient criteria. The permit should also include monitoring requirements for phosphorous.

RESPONSE: The technical basis for an 80 percent removal of total inorganic nitrogen was not provided by MWD. Therefore, an effluent limitation based on the technological capabilities of Tracy's proposed nitrification/denitrification facilities cannot be established. Furthermore, there is currently insufficient information to establish an effluent limitation for phosphorus. However, to better understand the biostimulatory impacts of the discharge, Regional Water Board staff will propose that new effluent and receiving water monitoring requirements be added to the permit for total phosphorus and total nitrogen, as a late revision to the permit.

MWD COMMENT #2: MWD asks that the Regional Water Board include effluent limits for TOC, along with monitoring requirements. The limits should consider the level of TOC removal expected to be achieved as a result of the planned coagulation/filtration processes as well as any additional removal that would occur as part of the treatment to achieve the requested phosphorous removal.

RESPONSE: There is currently insufficient information to establish an effluent limitation for TOC. However, Regional Water Board staff will propose that new effluent and receiving water monitoring requirements be added to the proposed Order for TOC, as a late revision to the permit.

ALAMEDA COUNTY WATER DISTRICT (ACWD)

ACWD COMMENT #1: We are pleased that the Regional Board is requiring Mountain House to conduct a study of salinity source control and treatment measures. We encourage the Regional Board to consider further permit provisions to improve protection for nutrients, organic carbon and salinity.

RESPONSE: Regarding salinity, the Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes. Regarding nutrients and total organic carbon, staff have proposed effluent and receiving water monitoring as a late revision.

ACWD COMMENT #2: We would like to request that a requirement be added to directly notify ACWD and other downstream drinking water agencies of any spills of untreated or partially treated wastewater from the Mountain House Wastewater Treatment Plant or collection system that reach Delta waters.

RESPONSE: Due to the close proximity of drinking water intakes downstream of the discharge, immediate notification of downstream water agencies would be required by the proposed Order to minimize any adverse effects resulting from spills of untreated or partially treated wastewater from the Facility or collection system that reach Delta waters. To provide clarification, Regional Water Board staff will propose, as a late revision, to modify Regional Water Board Standard Provisions Section VI.A.2.f., as follows:

f. The Discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge or sludge use or disposal, and <u>adequate public notification to downstream water agencies or others who might contact the non-complying discharge.</u>

The City must maintain an adequate spill response plan that includes a list of persons to notify in the event of a permit violation. By this Response to Comments, Regional Water Board is informing the MHCSD of CUWA's concern and indicating that it needs to update its spill response plan to include immediate notification of the requested downstream water

agencies[2] in the event of a spill.

[2] CUWA requested the following water agencies be notified: Alameda County Flood Control and Water Conservation District, Zone 7; Alameda County Water District; Santa Clara Valley Water District; Contra Costa Water District; and California Department of Water Resources.

STATE WATER RESOURCES CONTROL BOARD (STATE WATER BOARD)

SWRCB COMMENT #1: State Water Board staff strongly recommends that the Regional Water Board include effluent limitations for EC.

RESPONSE: The Staff Report for the City of Tracy Wastewater Treatment Plant provides a detailed analysis of the compliance and permitting issues with respect to Salinity. The Regional Board will hear that agenda item first, and will consider several options. Whatever approach is adopted for the City of Tracy will be considered for MHCSD. If implementation of an alternative approach constitutes a significant modification from the current proposed Order, then a 30-day review period would be provided for those changes.

SWRCB COMMENT #2: When calculating effluent limitations (using LTA, AMEL and MDEL multipliers) for priority pollutants, the appropriate CV should be used and calculated in accordance with Section 1.4 of the SIP. Some of the effluent limitations may need to be recalculated and the transposing error of the dibromochloromethane final effluent limitation be corrected.

RESPONSE: Staff has revised several limitations to correct various errors. Please see the response to comments for MHCSD #1, MHCSD #2, MHCSD #7, MHCSD #8, MHCSD #10, and MHCSD #14.

SWRCB COMMENT #3:
The Permit should clearly state when the limitations for bromoform, dibromochloromethane, and dichlorobromomethane become effective.

RESPONSE: The limitations are effective immediately upon discharge to surface waters.

NOAA NATIONAL MARINE FISHERIES SERVICE (NMFS)

NMFS COMMENTARY: NMFS has reviewed your tentative WDR and wishes to make more detailed comments. However, due to workload considerations we cannot supply the Board with comments by the July 14, 2006 deadline. We would like to supply these comments within the next week or so if the Board is agreeable to this.

RESPONSE: The public notice stated in part: "*Written evidence or comments received after that date/time will not be accepted and will not be incorporated into the administrative record if doing so would prejudice any party.*" The NMFS comments were not received by 5:00 p.m on 14 July 2006. The Regional Board cannot consider the NMFS commentary because it was not received by the stated time and there is a potential that it could prejudice one of the interested parties to the proposed Order.